

REMARKS

This Amendment is intended to respond fully to the Examiner's First Office Action dated June 20, 2003 in which claims 1-8, 12-27 and 30 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,523,142 (Igari et al.) and claims 9-11 were objected to as being dependent upon a rejected base claim. The Examiner kindly indicated that claims 9-11 would be in allowable form if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 28 and 29 were also rejected under 35 U.S.C. §112, second paragraph, for reciting a limitation that lacks antecedent basis. Also in the Office Action, the specification was objected to as having an improperly phrased Abstract.

In this Amendment, the Abstract and claims 1-3, 6-13, 15, 16, 18, 20, 28 and 29 have been amended. Claims 1-30 remain pending and are believed allowable for at least the reasons set forth below. As such, Applicant respectfully requests reconsideration of the aforementioned objections and rejections in view of these amendments and the following remarks.

A. Specification Amendment

The Abstract has been amended in response to the Examiner's objection and is believed to be in the proper language and format.

B. Claim Rejections

The above-noted rejections to the claims are addressed below:

1. Rejection of claims 28 and 29 under 35 U.S.C. §112, second paragraph

Claims 28 and 29 have been amended to correct informalities identified by the Examiner. Specifically, the phrase "the count" has been replaced with "a count" in both claims to correct antecedent basis problems with the originally presented claims.

2. Rejection of claims 1-8 and 1-8, 12-27 and 30 under 35 U.S.C. §102(e)

a. *Claims 1-8 and 12-14:*

Generally, amended claim 1 (hereinafter, just "claim 1") is directed to a method for reading data stored on a data storage disc in a disc drive. The data is stored on a plurality of

sequentially arranged data sectors located on a track on the disc. Collectively, the entire grouping of data being read by the method of claim 1 is referred to as a "data segment." The method includes accessing the plurality of sequentially arranged data sectors in order to read the data stored thereon. In response to encountering at least two errors while accessing at least two corresponding sectors, the method recites the creation of an instruction list that identifies those sectors on which an error was encountered when accessed. The method further recites the performance of a read error recovery procedure that uses this instruction list to determine which sectors to subsequently access and, at least attempt, to re-read the data stored thereon.

Turning now to the rejection at issue, Igari et al. does not teach or otherwise suggest each and every limitation set forth in claim 1, and therefore, does not anticipate claim 1 under 35 U.S.C. §102. See Manual of Patent Examining Procedure (MPEP), at §2131.01 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed.Cir. 1987)). For example, Igari et al. does not teach generating an instruction list identifying at least two sectors on which errors were encountered during an initial read operation. The Examiner cites Column 12, lines 56-57 as teaching such an instruction list; respectfully however, this cited portion of Igari et al. has nothing to do with the creation of an "instruction list." This cited portion of Igari et al., taken in context with the remainder of the discussion of FIG. 21, instead teaches a method by which subsequent sectors in a block of sectors are accessed after an error is detected. Igari et al. further goes on to teach that the sector on which an error was encountered is subsequently accessed and read from, but Igari et al. does not enable the manner in which this is accomplished. As such, the creation of an instruction list to log the identification of the sector on which the error was encountered is a feature claimed in Applicant's claim 1, but is not found in Igari et al.

Accompanying the fact that Igari et al. does not teach creation of the instruction list recited in claim 1, Igari et al. therefore cannot teach use of the instruction list by a read error recovery procedure in order to select those sectors for re-reading on a subsequent access of the track. This feature is also recited in Applicant's claim 1. See the executing step (c). The use of an instruction list to effectuate a read error recovery procedure is highly advantageous over the read operations taught by Igari et al. in that the present invention accommodates for the occurrence of multiple errors, but Igari et al. does not. To illustrate this, Igari et al. only describes performing a re-read operation when an error is encountered on a single sector. What if multiple errors are encountered while reading a block of sectors? Igari et al. does not address

such a situation, and therefore not only lacks teaching each limitation of claim 1, but also fails to suggest a motivation therefore. Claim 1 has been amended to include phrases such as "at least two errors" and "at least two sectors" in order to further highlight this distinction.

For at least the reasons noted above, claim 1 recites the present invention in a manner that properly differentiates the invention over Igari et al., and is believed allowable over same. Claims 2-8 and 12-14 depend from claim 1, and hence, recite an invention that incorporates the same limitations of claim 1. Thus, for at least the reasons noted above, claims 2-8 and 12-14 are believed allowable over the art of record.

b. *Claims 15-20:*

As with claim 1, amended claim 15 (hereinafter, just "claim 15") is generally directed to a method for reading a data segment stored on a plurality of sequentially arranged data sectors located on a track of a data storage disc. Also, this method is predicated on multiple errors being encountered while attempting to read data from at least two of the plurality of sectors on which the segment is stored. The method recites, among other features, an act of "re-accessing each of the at least two sectors on which the plurality of errors were encountered in order to attempt a subsequent read of the data recorded thereon, wherein each of the at least two sectors are re-accessed during a single revolution of the disc."

In contrast, Igari et al. fails to teach a re-read operation for use in reading data from *more than one sector* in response to an initial read of each of these sectors resulting in an error, as noted while traversing the rejection to claim 1. Even further, Igari et al. certainly does not teach a method so specific as to enable the reading of multiple sectors as part of a re-read operation administered during *a single revolution* of the disc. To that end, there is no suggestion in Igari et al. that the re-read operations described therein could be modified for use in circumstances when the initial accessing of a track results in multiple errors being encountered during retrieval of data from multiple sectors. Thus, claim 15 recites at least one limitation that is neither taught nor suggested by Igari et al. The present invention is therefore recited in claim 15 in a manner that properly differentiates the invention over Igari et al., and thus, is believed allowable over same. Claims 16-20 depend from claim 15, and hence, recite an invention that incorporates the same limitations of claim 15. Thus, for at least the reasons noted above, claims 16-20 are believed allowable over the art of record.

c. *Claims 21-25:*

Claims 21-25 are written in means-plus-function form and, therefore deserve, and which the Applicant respectfully requests, the analysis accorded to it by the USPTO as promulgated under the supplemental guidelines for the examination of claims written in accordance with 35 U.S.C. § 112, ¶6. These guidelines are applicable to and guide the determination of the patentability of claims 21-25 in the present case. See Supplemental Examination Guidelines for Determining the Applicability of 35 U.S.C. 112, ¶6, 65 FR 38510, Federal Register Vol. 65, No. 120 (June 21, 2000). Applicant respectfully notes that the Examiner has not provided a proper analysis supporting the pending rejection of these claims under Igari et al. Indeed, it is believed, and such a proper analysis will show, that Igari et al. is not applicable as anticipating or obviating prior art against claims 21-25, which are therefore believed allowable.

d. *Claims 26-30:*

Claim 26 recites a disc drive having, among other features, a transducer for retrieving data stored on a data storage disc, a read/write channel receiving the retrieved data from the transducer and an interface for transmitting the retrieved data between the read/write channel and a buffer for storage prior to subsequent transfer to a host computer. Claim 26 also specifically recites the disc drive having "a skip mask mechanism operably connected to the formatter and providing to the formatter an instruction list directed the formatter whether to enable the passage of data between the interface and the read/write channel."

Igari et al. does not anticipate claim 26 because each and every limitation recited in claim 26 is not found in this particular reference. For example, Igari et al. does not teach an (instruction list). The instruction list is defined in the claim as being a list that directs the formatter whether to enable the passage of data between the buffer interface and the read/write channel. Nowhere in Igari et al. is such a structure disclosed.

Because Igari et al. fails to teach an instruction list, it necessarily follows, then, that the skip mask mechanism element is not met by Igari et al. The Examiner relies on column 11, lines 27-28 as the teaching of the skip mask mechanism in order to support the rejection to claim 26; however, the teaching provided by this cited portion of Igari et al. is not relevant to the definition for a skip mask mechanism provided in the claim. This cited portion, taken in context of FIGS. 13, 14 and 15, is not directed to a structure for determining, by instruction list or any other

means, whether data is enabled to pass through the read/write channel to the buffer. Instead, this cited portion relates to specifying the *average speed* of transferring data. See Col. 11, lines 18-19 (“How to Specify the *Average Speed* of Transferring Data Processed by Commands performed in a Specific Period) (emphasis added) and Col. 11, lines 26-29 (“This data is a command (Specific code 9F) for terminating the measuring [of] the *average speed* of transferring the data processed by the commands performed in the specific period.”) (emphasis added). Plainly stated, control over the speed of data being transferred between locations in a disc drive and control over whether data is transferred between locations are two separate and distinct processes. As such, these processes are non-analogous with respect to each other.

For at least these reasons, claim 26 recites the present invention in a manner that properly differentiates the invention over Igari et al., and is believed allowable over same. Claims 27-30 depend from claim 26, and hence, recite an invention that incorporates the same limitations of claim 26. Thus, for at least the reasons noted above, claims 27-30 are believed allowable over the art of record.

C. Claim Objections

Applicant kindly thanks the Examiner for identifying that Claims 9-11 recite allowable subject matter and that these claims would be allowable if rewritten to include the limitations of all base and intervening claims. Because claim 1, i.e., the base independent claim to claims 9-11, is believed allowable for the reasons stated above, claims 9-11 have not been amended to independent form. Rather, these claims are believed to be in allowable form as currently pending in this Amendment.

CONCLUSION

This Amendment and the accompanying remarks is believed to be responsive to all points raised in the Office Action mailed June 20, 2003. Still, the Office Action may contain other arguments that are not directly addressed by this Amendment due to the fact that they are rendered moot in light of the preceding arguments in favor of patentability. Hence, failure of this Amendment to directly address an argument raised in the Office Action should not be taken as an indication that the Applicants believe the argument to have merit. Furthermore, the claims of the present application may include other elements, not discussed in this Amendment, that are not shown, taught, or otherwise suggested by the art of record. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

Claims 1-30 are pending in the application and are believed to clearly be allowable over the art of record. Accordingly, prompt allowance and passage of the application to issue are earnestly solicited. Should the Examiner have any remaining questions or concerns, he/she is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns. No fees are believed due with this Amendment. However, if this is not the case, please charge any additional fee to Deposit Account No. 13-2725. Additionally, please credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,



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